



## SEQUENCE LISTING

<110> Xu, Weixin  
Xu, Zhangbao  
Lin, Laura Long  
Olland, Stephane Hubert  
Mosyak, Lidia  
Somers, William Stuart

<120> CRYSTAL STRUCTURES OF KV CHANNEL  
PROTEINS AND USES THEREOF

<130> 16163-013001

<140> US 10/611,718

<141> 2003-07-01

<150> US 60/394,370

<151> 2002-07-08

<160> 3

<170> FastSEQ for Windows Version 4.0

<210> 1  
<211> 223  
<212> PRT  
<213> Homo sapiens

<400> 1  
Met Gly Ala Val Met Gly Thr Phe Ser Ser Leu Gln Thr Lys Gln Arg  
1 5 10 15  
Arg Pro Ser Lys Asp Lys Ile Glu Asp Asp Leu Glu Met Thr Met Val  
20 25 30  
Cys His Arg Pro Glu Gly Leu Glu Gln Leu Glu Ala Gln Thr Asn Phe  
35 40 45  
Thr Lys Arg Glu Leu Gln Val Leu Tyr Arg Gly Phe Lys Asn Glu Cys  
50 55 60  
Pro Ser Gly Val Val Asn Glu Glu Thr Phe Lys Gln Ile Tyr Ala Gln  
65 70 75 80  
Phe Phe Pro His Gly Asp Ala Ser Thr Tyr Ala His Tyr Leu Phe Asn  
85 90 95  
Ala Phe Asp Thr Thr Gln Thr Gly Ser Val Lys Phe Glu Asp Phe Val  
100 105 110  
Thr Ala Leu Ser Ile Leu Leu Arg Gly Thr Val His Glu Lys Leu Arg  
115 120 125  
Trp Thr Phe Asn Leu Tyr Asp Ile Asn Lys Asp Gly Tyr Ile Asn Lys  
130 135 140  
Glu Glu Met Met Asp Ile Val Lys Ala Ile Tyr Asp Met Met Gly Lys  
145 150 155 160  
Tyr Thr Tyr Pro Val Leu Lys Glu Asp Thr Pro Arg Gln His Val Asp  
165 170 175  
Phe Phe Gln Lys Met Asp Lys Asn Lys Asp Gly Ile Val Thr Leu Asp  
180 185 190  
Glu Phe Leu Glu Ser Cys Gln Glu Asp Asp Asn Ile Met Arg Ser Leu  
195 200 205

Gln Leu Phe Gln Asn Val Met Val Glu His His His His His His  
 210 215 220

<210> 2

<211> 124

<212> PRT

<213> Homo sapiens

<400> 2

Met Leu Ala Pro Ala Asp Lys Asn Lys Arg Gln Asp Glu Leu Ile Val  
 1 5 10 15  
 Leu Asn Val Ser Gly Arg Arg Phe Gln Thr Trp Arg Thr Thr Leu Glu  
 20 25 30  
 Arg Tyr Pro Asp Thr Leu Leu Gly Ser Thr Glu Lys Glu Phe Phe Phe  
 35 40 45  
 Asn Glu Asp Thr Lys Glu Tyr Phe Phe Asp Arg Asp Pro Glu Val Phe  
 50 55 60  
 Arg Cys Val Leu Asn Phe Tyr Arg Thr Gly Lys Leu His Tyr Pro Arg  
 65 70 75 80  
 Tyr Glu Cys Ile Ser Ala Tyr Asp Asp Glu Leu Ala Phe Tyr Gly Ile  
 85 90 95  
 Leu Pro Glu Ile Ile Gly Asp Cys Cys Tyr Glu Glu Tyr Lys Asp Arg  
 100 105 110  
 Lys Arg Glu Asn Leu Glu His His His His His His  
 115 120

<210> 3

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> conserved binding motif

<221> VARIANT

<222> (1) ... (29)

<223> Xaa = Any Amino Acid

<400> 3

His Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 1 5 10 15  
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Cys  
 20 25